IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An electronic device for use in assisting a hearing impaired patient having a microphone, a preamp, a signal processing stage, and an output amplifier, the electronic device comprising:

an active low pass filter responsively coupled between said signal processing stage and said output amplifier, said active low pass filter having an adjustable overshoot adapted to tunably match a measured resonance curve to provide a substantially smooth insertion gain frequency response, said active low pass filter including:

a resistor coupled to a capacitor to form a low pass filter to provide a filtered signal;

an operational amplifier to receive the filtered signal at an input of the operational amplifier;

a feedback capacitor coupled from an output of the operational amplifier to the input of the operational amplifier; and

a variable resistor to couple the low pass filter to the input of the operational amplifier, wherein said active low pass filter is adapted to provide a frequency of peak gain of the electronic device ~~at about 1.2 kilohertz~~.

2. (Previously Presented) The electronic device of claim 1, wherein said output amplifier further comprises a class D amplifier.

3. (Previously Presented) The electronic device of claim 2, further comprising a buffer stage responsively coupled intermediate said active low pass filter and said output amplifier.

4. (Previously Presented) The electronic device of claim 3, wherein the measured resonance curve corresponds to a resonance curve of an outer auditory canal of a hearing impaired patient.

5. (Currently Amended) The electronic device of claim 4, wherein said ~~said~~ buffer stage is coupled to said active low pass filter by a coupling capacitor and coupling resistor connected in series.

6. (Previously Presented) A hearing aid comprising:

a microphone;

a preamp and signal processing stage responsively coupled to said microphone;

an active low pass filter responsively coupled to said preamp and signal processing stage, said active low pass filter having an adjustable overshoot adapted to tunably match a measured resonance curve to provide a substantially smooth insertion gain frequency response, said active low pass filter including:

a resistor coupled to a capacitor to form a low pass filter to provide a filtered signal;

an operational amplifier to receive the filtered signal at an input of the operational amplifier; and

a variable resistor to couple the low pass filter to the input of the operational amplifier such that the variable resistor controls a peak frequency of the low pass filter; and

an output amplifier responsively coupled to said active low pass filter.

7. (Previously Presented) The hearing aid according to claim 6 wherein said output amplifier further comprises a class D amplifier.

8. (Previously Presented) The hearing aid according to claim 7 wherein said active low pass filter is adapted to provide a frequency of peak gain of the hearing aid at about 1.2 kilohertz.

9. (Previously Presented) The hearing aid according to claim 7 wherein said output amplifier is coupled to said active low pass filter by a buffering stage that is capacitively coupled to said active low pass filter.

10. (Currently Amended) The hearing aid according to claim 9 wherein said ~~said~~ output amplifier is coupled to said buffering stage by a capacitor.

11. (Previously Presented) A method of assisting a hearing impaired patient comprising:

tuning a frequency response curve of an electronic hearing aid to a measured resonance curve of said hearing impaired patient such that the electronic hearing aid provides said hearing impaired patient with a smooth insertion frequency response, wherein said tuning includes adjusting a variable resistor coupled to an operational amplifier of an active low pass filter in the electronic hearing aid, the active low pass filter configured having;

a low pass filter to provide a filtered signal;

the operational amplifier to receive the filtered signal at an input of the operational amplifier; and

the variable resistor coupling the low pass filter to the input of the operational amplifier such that the variable resistor controls a peak frequency of the low pass filter.

12. (Previously Presented) The method according to claim 11 wherein said electronic hearing aid further comprises a class D output amplifier.

13. (Previously Presented) The method according to claim 12 wherein said electronic hearing aid further comprises said active low pass filter responsively coupled to said class D output amplifier.

14. (Previously Presented) The method according to claim 13 wherein said tuning further comprises adjusting the overshoot of said active low pass filter to provide a frequency of peak gain of the electronic hearing aid at about 1.2 kilohertz.

15. (Previously Presented) The method according to claim 14 wherein said adjusting further comprises adjusting an amplification of an overshoot of said active low pass filter.

16. (Previously Presented) A hearing aid comprising:

means for converting an acoustic signal into an electrical signal;

means responsively coupled to said converting means for adjustably processing said electrical signal to produce a desired frequency response, said processing means having an active low pass filter adapted to tunably match a measured resonance curve to provide a substantially smooth insertion gain frequency response, said active low pass filter including:

a low pass filter to provide a filtered signal;

an operational amplifier to receive the filtered signal at an input of the operational amplifier; and

a variable resistor to couple the low pass filter to the input of the operational amplifier such that the variable resistor controls frequency of peak gain in a frequency response of the hearing aid; and

means responsively coupled to said processing means for amplifying said processed electrical signal.

17. (Previously Presented) The hearing aid according to claim 16 wherein said amplifying means further comprises a class D amplifier.

18. (Previously Presented) The hearing aid according to claim 17 wherein said processing means is adapted to provide a frequency of peak gain of the hearing aid at about 1.2 kilohertz.

19. (Currently Amended) The hearing aid according to claim 16 wherein said ~~said~~ amplifying means is capacitively coupled to said processing means.

20. (Previously Presented) The hearing aid according to claim 16 wherein said amplifying means is coupled to said processing means through a buffering stage.